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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/715,738	ELLIOTT, BRIG BARNUM	
	Examiner	Art Unit	
	Kevin Mew	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31 and 35-40* is/are rejected.

7)☒ Claim(s) *32-34* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/17/03, 3/16/05, 8/20/07,2/15/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-5, 8, 11-12, 14-15, 17-18, 21, 23-24, 26-27, 30-31, 35-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Norman et al. (USP 6,049,533).

Regarding claim 1, Norman discloses a method of implementing optical channel access in a network comprising a plurality of distributed nodes (a plurality of mobile units, Fig. 2) and a master node (access point AP1, element 42, col. 7, lines 17-23, Fig. 2), the method comprising:

requesting (transmitting a registration request packet directly to the selected access point, col. 18, lines 3-21, step 110, Fig. 9) the optical channel access (the lines interconnecting access points are fiber optic lines/optical channel access, col. 1, lines 35-41) via radio-frequency (via RF section, col. 18, lines 3-21) messaging (via radio frequency communication between antennas 48 and 50, col. 7, lines 17-23, Fig. 4) from one or more of the plurality of distributed nodes (from one of the mobile units such as element MU1, Fig. 2) to the master node (to the access point, col. 7, lines 17-23, element 42, Fig. 2); and

granting, from the master node, the optical channel access to at least one of the plurality of distributed nodes based on the RF messaging (the access point transmits a registration request acknowledgement message to the requesting mobile unit in the event if the mobile unit is

permitted to register, col. 18, lines 3-21).

Regarding claim 2, Norman discloses the method of claim 1, wherein the optical channel comprises a free-space channel (wireless link can be used an optical link, col. 28, lines 21-31).

Regarding claim 3, Norman discloses the method of claim 1, wherein the optical channel comprises an optical fiber channel (fiber optic lines, col. 1, lines 35-41).

Regarding claim 4, Norman discloses the method of claim 1, wherein the plurality of distributed nodes comprise mobile nodes (the distributed nodes are mobile units, col. 7, lines 17-23, col. 18, lines 3-21, and Fig. 2).

Regarding claim 5, Norman discloses the method of claim 1, wherein the network comprises an ad-hoc network (network communication system 30, col. 6, lines 31-33, Fig. 2).

Regarding claim 8, Norman discloses the method of claim 1, wherein granting optical channel access to the at least one of the plurality of distributed nodes comprises:

sending an access granted message via RF messaging from the master node (the access point transmits a registration request acknowledgement message to the requesting mobile unit in the event if the mobile unit is permitted to register, col. 18, lines 3-21).

Regarding claim 11, Norman discloses a system for implementing optical channel access in a network comprising a plurality of distributed nodes (a plurality of mobile units and access points, Fig. 2), comprising:

a first node of the plurality of distributed nodes configured to request the optical channel access (mobile unit MU1 to make registration request to the selected access point for fiber optic lines/optical channel access, col. 1, lines 35-41, col. 18, lines 3-21, step 110, Fig. 9) with at least one other node (with the host 36, col. 7, lines 11-23 and Fig. 2) via radio-frequency (RF) messaging (via RF section, col. 18, lines 3-21);

a second node of the plurality of distributed nodes (access point 42, Fig. 2) configured to grant or deny the requested optical channel access (the access point transmits a registration request acknowledgement message to the requesting mobile unit in the event if the mobile unit is permitted to register, col. 18, lines 3-21); and

a third node configured to establish the optical channel access to the first node based on whether the second node grants or denies the requested optical channel access (another potential access point is selected to establish the optical channel access to the mobile unit MU1 when the first access point does not permit MU1 to register, col. 18, lines 11-15).

Regarding claim 12, Norman discloses a method of establishing an optical link between a first node (mobile unit MU1, col. 7, lines 11-33, Fig. 2) and a second node (host 36, col. 7, lines 11-23 and Fig. 2, Fig. 2) in a network (network 30, Fig. 2), wherein at least one of the first and second nodes comprises a mobile node (first node MU1 is a mobile unit, col. 7, lines 11-33 and Fig. 2), the method comprising:

sending a request message (transmitting a registration request packet, col. 18, lines 3-21, step 110, Fig. 9) to establish the optical link from the first node to a third node (to establish fiber optic line access/optical channel access from MU1 to the access point 42, col. 1, lines 35-41, col. 18, lines 3-21, step 110, Fig. 9 and Fig. 2) via electrical signals (via RF) over an electrically transmissive medium (over RF section, col. 18, lines 3-21);

receiving a request denied message or a request granted message from the third node via electrical signals over the electrically transmissive medium (receiving a registration request acknowledgement message from the selected access point in the event if the mobile unit is permitted to register over the RF section, col. 18, lines 3-21);

establishing an optical link between the first node and the second node based on the receipt of the request granted message (establishing a path between MU1 and the host 36 based on the permission to register with the access point using the source routing information, col.8 , lines 26-44); and

transmitting data between the first node and the second node via optical signals over the optical link (transmitting data between MU1 and the host via the fiber optic line, col. 1, lines 35-41).

Regarding claim 14, Norman discloses the method of claim 12, wherein the optical link comprises a free-space link (wireless link can be used an optical link, col. 28, lines 21-31).

Regarding claim 15, Norman discloses the method of claim 12, wherein the optical link comprises an optical fiber (fiber optic lines, col. 1, lines 35-41).

Regarding claim 17, Norman discloses the method of claim 12, wherein the electrical signals comprise radio-frequency (RF) signals (via RF signals) and wherein the electrically transmissive medium comprises free-space (over RF section which is a wireless medium, col. 18, lines 3-21 and Fig. 2).

Regarding claim 18, Norman discloses the method of claim 12, wherein the electrically transmissive medium comprises a wired medium (the network can be a wired network, col. 28, lines 21-31).

Regarding claim 21, Norman discloses a first node in a network, comprising:

a non-optical transceiver configured to:

send a request message to a master node (transmitting a registration request packet directly to the selected access point, col. 18, lines 3-21, step 110, Fig. 9) via electrical signals over an electrically transmissive medium (via RF section, col. 18, lines 3-21) to request permission to establish an optical link (the lines interconnecting access points are fiber optic lines/optical channel access, col. 1, lines 35-41) from the first node to a second node (from MU1 to a destination unit terminal, Fig. 2), wherein the second node comprises a mobile node (destination unit terminal is wireless, col. 5, lines 13-17), and

receive a request granted message or a request denied message from the master node (the access point transmits a registration request acknowledgement message to the requesting mobile

unit in the event if the mobile unit is permitted to register, col. 18, lines 3-21); and an optical subsystem configured to:

establish an optical link between the first node and the second node based on the receipt of the request granted message (establishing a path between MU1 and the host 36 based on the permission to register with the access point using the source routing information, col.8 , lines 26-44), and

transmit data between the first node and the second node via optical signals over the optical link (transmitting data between MU1 and the host via the fiber optic line, col. 1, lines 35-41).

Regarding claim 23, Norman discloses the node of claim 21, wherein the optical link comprises a free-space link (wireless link can be used an optical link, col. 28, lines 21-31).

Regarding claim 24, Norman discloses the node of claim 21, wherein the optical link comprises an optical fiber (fiber optic lines, col. 1, lines 35-41).

Regarding claim 26, Norman discloses the node of claim 21, wherein the electrical signals comprise radio-frequency (RF) signals (via RF signals) and wherein the electrically transmissive medium comprises free-space (over RF section which is a wireless medium, col. 18, lines 3-21 and Fig. 2).

Regarding claim 27, Norman discloses the node of claim 21, wherein the electrically transmissive medium comprises a wired medium (the network can be a wired network, col. 28, lines 21-31).

Regarding claim 30, Norman discloses a method of coordinating communication between first and second nodes in a network via a master node, comprising:

arbitrating, at the master node (the access point AP1 deciding on establishing, element 42, col. 7, lines 17-23, Fig. 2), establishment of an optical channel (the lines interconnecting access points are fiber optic lines/optical channel access, col. 1, lines 35-41) between the first and second nodes (between MU1 and the host 36, Fig. 2) by transmitting electrical signals over a non-optical channel (via radio frequency communication between antennas 48 and 50, col. 7, lines 17-23, Fig. 4) to the master node (to the access point AP1, element 42, col. 7, lines 17-23, Fig. 2) from at least one of the first and second nodes (from MU1, col. 18, lines 3-21, step 110 and Fig. 2);

granting, at the master node, the establishment of the optical channel between the first and second nodes based on the transmitted electrical signals over the non-optical channel (the access point transmits a registration request acknowledgement message to the requesting mobile unit in the event if the mobile unit is permitted to register, col. 18, lines 3-21); and

communicating via the established optical channel between the first and second nodes (transmitting data between MU1 and the host via the fiber optic line, col. 1, lines 35-41).

Regarding claim 31, Norman discloses the method of claim 30, wherein the first node comprises a mobile node (mobile unit MU1, col. 7, lines 11-33, Fig. 2).

Regarding claim 35, Norman discloses the method of claim 30, wherein the non-optical channel comprises a radio-frequency (RF) channel (over RF section, col. 18, lines 3-21 and Fig. 2).

Regarding claim 36, Norman discloses the method of claim 30, wherein the non-optical channel comprises a wired medium (the network can be a wired network, col. 28, lines 21-31).

Regarding claim 37, Norman discloses the method of claim 36, wherein the wired medium employs at least one of Ethernet (Ethernet network, col. 2, lines 28-30), Internet, and ATM protocols.

Regarding claim 38, Norman discloses the method of claim 30, wherein the optical channel comprises free space (wireless link can be used an optical link, col. 28, lines 21-31).

Regarding claim 39, Norman discloses the method of claim 30, wherein the optical channel comprises an optical fiber (fiber optic lines, col. 1, lines 35-41).

Regarding claim 40, Norman discloses a system for establishing an optical link with a mobile node in a network, comprising:

means for sending a request message to establish the optical link from a first node to a third node (transmitting a registration request packet directly to the selected access point, col. 18, lines 3-21, step 110, Fig. 9) via electrical signals over an electrically transmissive medium (via RF section, col. 18, lines 3-21);

means for receiving a request denied message or a request granted message from the third node (the access point transmits a registration request acknowledgement message to the requesting mobile unit in the event if the mobile unit is permitted to register, col. 18, lines 3-21) via other electrical signals over the electrically transmissive medium (via RF section, col. 18, lines 3-21);

means for establishing the optical link between the first node and the mobile node based on the receipt of the request granted message (establishing a path between MU1 and the destination unit terminal/host based on the permission to register with the access point using the source routing information, col.8 , lines 26-44); and

means for transmitting data between the first node and the mobile node via optical signals over the optical link (transmitting data between MU1 and the host via the fiber optic line, col. 1, lines 35-41).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norman et al. in view of Beach (US Publication 2007/0109993 A1).

Regarding claim 6, Norman discloses all aspects of the method of claim 1 above, except fails to explicitly show further comprising:

denying, from the master node, optical channel access to another of the plurality of distributed nodes based on the RF messaging.

However, Beach teaches mobile unit trying to access a optical fiber network via radio frequency signals and the cell controller denies the access to the mobile unit if by providing an alert if the mobile unit does not have access authorization (paragraphs 0128, 0150-0151 and Fig. 6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the optical channel access method of Norman with the teaching of Beach in showing a mobile unit trying to access an optical fiber network via radio frequency signals and the cell controller denies the access to the mobile unit if by providing an alert if the mobile unit does not have access authorization such that the access method of Norman will comprise denying, from the master node (access point), optical channel access to another of the plurality of distributed nodes based on the RF messaging.

The motivation to do so is to provide the capability to control the access of the mobile units according to the traffic observed in the cell controller.

Regarding claim 7, Norman discloses all aspects of the method of claim 6, except fails to explicitly show wherein denying optical channel access comprises:

sending an access denial message via RF messaging from the master node.

However, Beach teaches mobile unit trying to access an optical fiber network via radio frequency signals and the cell controller denies the access to the mobile unit if by providing an alert if the mobile unit does not have access authorization (paragraphs 0128, 0150-0151 and Fig. 6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the optical channel access method of Norman with the teaching of Beach in showing a mobile unit trying to access a optical fiber network via radio frequency signals and the cell controller denies the access to the mobile unit if by providing an alert if the mobile unit does not have access authorization such that the denying optical channel access of Norman will comprise sending an access denial message via RF messaging from the master node.

The motivation to do so is to provide the capability to control the access of the mobile units according to the traffic observed in the cell controller.

3. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norman et al. in view of Beach (US Publication 2007/0109993 A1), and in further view of Gunaratnam et al. (US Publication 2008/0081622).

Regarding claim 9, Norman and Beach disclose the method of claim 7, except fails to explicitly show further comprising:

subsequent to optical channel access denial, waiting a period of time before repeating the optical channel access request via RF messaging.

However, Gunaratnam teaches a mobile station receiving reject cause code from a GSM network, which represents the reason for service denial and the mobile unit waits, in accordance with the reject cause code, to request the data service again until a timer expires (paragraph 0070).

Therefore, it would have been obvious to one of ordinary skill in the at the time the invention was made to modify the communication system of Norman with the teaching of Gunaratnam in showing a mobile station receiving reject cause code from a GSM network, which represents the reason for service denial and the mobile unit waits, in accordance with the reject cause code, to request the data service again until a time expires such that the request denied message in Norman will comprise subsequent to optical channel access denial, waiting a period of time before repeating the optical channel access request via RF messaging.

The motivation to do so is to make a communication request at a specified time in response to the corresponding reason for service denial.

Regarding claim 10, Norman, Beach and Gunaratnam disclose the method of claim 9. Norman and Beach may not explicitly show wherein the period of time is derived from a retry time contained in the access denial message.

However, Gunaratnam teaches a mobile station receiving reject cause code from a GSM network, which represents the reason for service denial and the mobile unit waits, in accordance with the reject cause code, to request the data service again until a timer expires (paragraph 0070).

Therefore, it would have been obvious to one of ordinary skill in the at the time the invention was made to modify the communication system of Norman with the teaching of Gunaratnam in showing a mobile station receiving reject cause code from a GSM network, which represents the reason for service denial and the mobile unit waits, in accordance with the reject cause code, to request the data service again until a time expires such that the request denied message in Norman will comprise the period of time is derived from a retry time contained in the access denial message.

The motivation to do so is to make a communication request at a specified time in response to the corresponding reason for service denial.

4. Claims 13, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norman et al. in view of Salokannel et al. (US Publication 2002/0022455 A1).

Regarding claim 13, Norman discloses all aspects of the method of claim 12, except fails to explicitly show wherein sending a request message to establish the optical link comprises:

employing one or more time slots of a time division multiple access (TDMA) ring for sending the request message over the electrically transmissive medium.

However, Salokannel discloses sending connection set-up request in a time slot on a RACH control channel to the access point in a TDMA system (paragraphs 0006, 0008).

Therefore, it would have been obvious to one of ordinary skill in the at the time the invention was made to modify the communication system of Norman with the teaching of Salokannel in sending connection set-up request in a time slot on a RACH control channel to the access point in a TDMA system such that the link establishment method of Norman will comprise employing one or more time slots of a time division multiple access (TDMA) ring for sending the request message over the electrically transmissive medium.

The motivation to do so is to allow the access point to listen to the control channel for any connection setup requests from mobile terminals.

Regarding claim 22, Norman discloses the node of claim 21 above, except fails to explicitly show the non-optical transceiver is configured to:

employ one or more time slots of a time division multiple access (TDMA) ring for sending the request message to the master node over the electrically transmissive medium.

However, Salokannel discloses sending connection set-up request in a time slot on a RACH control channel to the access point in a TDMA system (paragraphs 0006, 0008).

Therefore, it would have been obvious to one of ordinary skill in the at the time the invention was made to modify the communication system of Norman with the teaching of Salokannel in sending connection set-up request in a time slot on a RACH control channel to the

access point in a TDMA system such that the link establishment method of Norman will comprise employ one or more time slots of a time division multiple access (TDMA) ring for sending the request message to the master node over the electrically transmissive medium.

The motivation to do so is to allow the access point to listen to the control channel for any connection setup requests from mobile terminals.

5. Claims 16, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norman et al. in view of Gunaratnam et al. (US Publication 2008/0081622).

Regarding claim 16, Norman discloses all aspects of the method of claim 12, except fails to explicitly show wherein the request denied message includes a time period that the first node is to wait before sending another request message to the third node.

However, Gunaratnam teaches a mobile station receiving reject cause code from a GSM network, which represents the reason for service denial and the mobile unit waits, in accordance with the reject cause code, to request the data service again until a time expires (paragraph 0070).

Therefore, it would have been obvious to one of ordinary skill in the at the time the invention was made to modify the communication system of Norman with the teaching of Gunaratnam in showing a mobile station receiving reject cause code from a GSM network, which represents the reason for service denial and the mobile unit waits, in accordance with the reject cause code, to request the data service again until a time expires such that the request denied message in Norman will include a time period that the first node is to wait before sending another request message to the master node.

The motivation to do so is to make a communication request at a specified time in response to the corresponding reason for service denial.

Regarding claim 25, Norman discloses all aspects of the node of claim 21, except fails to explicitly show wherein the request denied message includes a time period that the first node is to wait before sending another request message to the master node.

However, Gunaratnam teaches a mobile station receiving reject cause code from a GSM network, which represents the reason for service denial and the mobile unit waits, in accordance with the reject cause code, to request the data service again until a time expires (paragraph 0070).

Therefore, it would have been obvious to one of ordinary skill in the at the time the invention was made to modify the communication system of Norman with the teaching of Gunaratnam in showing a mobile station receiving reject cause code from a GSM network, which represents the reason for service denial and the mobile unit waits, in accordance with the reject cause code, to request the data service again until a time expires such that the request denied message in Norman will include a time period that the first node is to wait before sending another request message to the master node.

The motivation to do so is to make a communication request at a specified time in response to the corresponding reason for service denial.

6. Claims 19, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norman et al. in view of Kawabe et al. (USP 7,187,867).

Regarding claim 19, Norman discloses the method of claim 12 above, except fails to explicitly show, wherein establishing an optical link comprises:

pointing at least one steerable aperture at least one of the first and second nodes; and

establishing the optical link via the steerable aperture.

However, Kawabe teaches an access point/optical repeater that steers at one of the mobile optical nodes to establish both upward and downward optical path communications with the optical nodes (col. 3, lines 29-47 and Figs. 9A and 9B).

Therefore, it would have been obvious to one of ordinary skill in the at the time the invention was made to modify the communication system of Norman with the teaching of Kawabe in having an access point/optical repeater that steers at one of the mobile optical nodes to establish both upward and downward optical path communications with the optical nodes such that the access point of Norman will be modified to have the ability to point at least its steerable aperture at least one of the first and second nodes; and establishing the optical link via the steerable aperture.

The motivation to do is to allow the access point to have wide directive angles for more flexible arrangement for optical communications.

Regarding claim 28, Norman discloses the node of claim 21 above, except fails to explicitly show wherein the optical subsystem is further configured to:

point at least one steerable aperture at the second node, and

establish the optical link via the steerable aperture.

However, Kawabe teaches an access point/optical repeater that steers at one of the mobile optical nodes to establish both upward and downward optical path communications with the optical nodes (col. 3, lines 29-47 and Figs. 9A and 9B).

Therefore, it would have been obvious to one of ordinary skill in the at the time the invention was made to modify the communication system of Norman with the teaching of Kawabe in having an access point/optical repeater that steers at one of the mobile optical nodes to establish both upward and downward optical path communications with the optical nodes such that the access point of Norman will be modified to have the ability to point at least its steerable aperture at the second node; and establishing the optical link via the steerable aperture.

The motivation to do is to allow the access point to have wide directive angles for more flexible arrangement for optical communications.

7. Claims 20, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norman et al. in view of Kawabe, and in further view of Clark et al. (US Publication 2004/0120717 A1).

Regarding claim 20, Norman and Kawabe disclose all aspects of the method of claim 19.

Norman and Kawabe may not explicitly show wherein the steerable aperture comprises a telescope.

However, Clark discloses employing an apparatus equipped with a telescope in free space optical communication (paragraph 0085).

Therefore, it would have been obvious to one of ordinary skill in the at the time the invention was made to modify the communication system of Norman with the teaching of Clark

in employing an apparatus equipped with a telescope in free space optical communication such that the steerable aperture of the modified method of Norman will comprise a telescope.

The motivation to do so is to generate a single extended source output beam so that it will enhance the beam power detection by minimizing power divergence.

Regarding claim 29, Norman and Kawabe disclose the node of claim 28, except fail to explicitly show wherein the steerable aperture comprises a telescope.

However, Clark discloses employing an apparatus equipped with a telescope in free space optical communication (paragraph 0085).

Therefore, it would have been obvious to one of ordinary skill in the at the time the invention was made to modify the communication system of Norman with the teaching of Clark in employing an apparatus equipped with a telescope in free space optical communication such that the steerable aperture of the modified method of Norman will comprise a telescope.

The motivation to do so is to generate a single extended source output beam so that it will enhance the beam power detection by minimizing power divergence.

Allowable Subject Matter

8. Claims 32-34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In claim 32, the method of claim 30, wherein establishing the optical channel comprises: steering a first optical aperture to point towards the second node from the first node; and establishing the optical channel via the first optical aperture.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 571-272-3141. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin Mew /K. M./
Examiner, Art Unit 2616

/Chi H Pham/
Supervisory Patent Examiner, Art Unit 2616
7/2/08